CONTEXT

Burnthouse Lane is the main artery of an extensive residential area. It is a distributor road and connects a major radial road to a large district of Exeter known as Heavitree. Two schools are sited on this road which also acts as a main access route to a Secondary School and a Nursery School. There are shops, churches, a surgery, a village hall, and a public house along its length. It was a long straight road with uninterrupted visibility of 0.5 km. This combined with a width of 12.5m, gave rise to considerable volumes of traffic on what is essentially a residential road, with motorists
23: Flat top humps, lateral shifts and footway extensions at approach to junction. Planting, including raised red brick flower beds, adds to the street scene. (Photo: Devon County Council)

24: The narrowed street with cycle tracks and sheltered parking. The dedicated cycle lane at the junction leads to the Exe Cycle Route. (Photo: Devon County Council)

travelling at high and illegal speeds. There were a significant number of accidents with a high proportion involving pedestrians or cyclists.

OBJECTIVES

Burnthouse Lane performs several functions, some of which conflict and it was, therefore, decided to set three primary objectives: reduce traffic speed; reduce accidents; and improve the environment. The local community was involved in the development of the scheme.

DESCRIPTION

The main carriageway width was reduced from 12.5m to 5.5m wide, with an additional 1m wide cycle track on both sides and sheltered parking was provided. Flat top humps were installed along the route and at the junctions, including the side roads entering Burnthouse Lane. Lateral shifts were introduced at the approaches to the junctions.

The road and sheltered parking was surfaced in bitumen macadam, the cycle track was surfaced with red slurry seal and small (300mm x 450mm) grey concrete slabs were used for the footway. The road humps were formed by fixing brindle coloured concrete blocks to the carriageway on an epoxy mortar bed with bitumen macadam approach ramps. Accesses across the footway to private drives were formed in grey concrete blocks.

Raised planters were constructed in red brick and this, combined with the planting of trees and the change in alignment, succeeded in removing the impression of a wide straight fast road.

Lighting columns with long outreach arms were provided at the back of the footway. In addition, a lighting column with a spherical lantern was provided on the footway at each side of the road humps, which has the double benefit of enhancing the lighting at these sites where pedestrians
are most likely to cross and also acting as a means of drawing the motorist’s attention to the road humps themselves.

Additional footway and planters were provided outside Bradley Rowe school which has provided a pleasant area where parents may gather while waiting for their children.

COST

The cost was £220,000 for the total length of scheme of 0.6 km.

ASSESSMENT

The Burnthouse Lane Traffic Calming Scheme has been a success in terms of the original objectives set. Before the scheme was carried out some 37% of vehicles exceeded 30 mph. The 85 percentile speed was 34 mph, with maximum speeds being recorded between 50 and 55 mph. Following the completion of the scheme, the 85 percentile speed had fallen to 24 mph with maximum speeds of between 29 and 33 mph being recorded. At the road humps themselves the speeds are approximately 14 mph. The annual rate of accidents is lower than before the scheme was implemented particularly in the under 11 years age group and the severity of accidents has been reduced. A 12% reduction in traffic flows during peak hours has been achieved.

The use of quality materials and planting has contributed to the environmental improvements and resulted in the residents of Burnthouse Lane taking a renewed pride in this road. On the negative side, there have been some complaints about traffic transferring to alternative adjacent routes.